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10/719,149	11/21/2003	Steven R. Sedlmayr	AU01020	2117

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Law Office of Roxana H. Yang  
P.O. Box 3986  
Los Altos, CA 94024

EXAMINER

FINEMAN, LEE A

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 01/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/719,149

Applicant(s)

SEDLMAYR, STEVEN R.

Examiner

Lee Fineman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 233-288 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 233-288 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/21/03 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/3/04
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

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### **DETAILED ACTION**

This Office Action is in response to an amendment filed 3 November 2004 in which claims 233, 240, 247, 254, 260, 268-269, 271, 274-275, 282-283, 285 and 288 were amended.

Claims 233-288 are pending.

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “means for providing a primary beam of electromagnetic energy includes means for providing an initial beam of electromagnetic energy having substantially the same selected predetermined orientation for the chosen component of the electromagnetic wave field vectors substantially across the beam” (claims 236, 250, 264 and 278) and means for combining the altered separate beams of electromagnetic energy/light of the primary first beam and the primary second beam without previously subcombining any plurality of altered separate beams of the primary first resolved beam and the primary second resolved beam (claims 233, 247, 261, 275) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Although figs. 20C-20D show light sources that provide a primary beam having the same predetermined orientation and altered beams that have not been subcombined, these embodiments do not resolve the beams as needed in step [b]. Figs. 20-20B show a primary beam with random polarization and altered beams that have been subcombined (e.g. 152L is first combined with 144L by 92L and then 160L is combined with the other two by 90L).

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Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 233-288 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed

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invention. Claims 233, 247, 261 and 275 contain the newly added limitations that the means for combining the altered separate beams of electromagnetic energy/light of the primary first beam and the primary second beam combines without previously subcombining any plurality of altered separate beams of the primary first resolved beam and the primary second resolved beam.

However the specification and drawings (figs. 20-20B) only disclose wherein the altered beams are subcombined (e.g. 152L is first combined with 144L by 92L and then 160L is combined with the other two by 90L). Accordingly the limitations are considered new matter. The dependent claims inherit the deficiencies of the claims from which they depend.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 236, 250, 264 and 278 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear how the primary beam can have substantially the same selected predetermined orientation for the chosen component of the electromagnetic wave field vector and then be resolved into a primary first resolved beam and a primary second resolved beam as stated in step [b].

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 233-234, 236-248, 250-262, 264-276 and 278-288 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atarashi et al., U.S. Patent No. 5,172,254 in view of Sato et al., U.S. Patent No. 5,042,921.

Regarding 233-234, 236, 239-248, 250, 253-262, 264, 267-276, 278 and 281-288, Atarashi et al. disclose in fig. 5 a system and method of producing a modulated beam of electromagnetic energy/light, comprising:

[a] means (1 and 2) for providing a substantially collimated (by 2) primary beam of electromagnetic energy/light having a predetermined range of wavelengths;

[b] means (13) for resolving the primary beam of electromagnetic energy/light into a primary first resolved beam (travels toward 21BP) of electromagnetic energy/light having substantially a first selected predetermined orientation of a chosen component of the electromagnetic wave field vectors (P) and a primary second resolved beam (travels toward 16) of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of the electromagnetic wave field vectors (S);

[c] means (21BP, 21GP1, 21BS, 21GS1) for separating each of the primary resolved beams of electromagnetic energy/light into two or more separate beams of electromagnetic energy/light, each of the separate beams of electromagnetic energy/light having a selected predetermined orientation of a chosen component of electromagnetic wave field vectors (P or S);

[d] means (15BP, 15GP, 15RP, 15BS, 15GS, 15RS) for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of a plurality of portions of each of the separate beams of electromagnetic energy/light by passing

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the plurality of portions of each of the separate beams of electromagnetic energy/light through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy/light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as the plurality of portions of each of the separate beams of electromagnetic energy/light passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors (column 7, line 56-column 8, line 12);

[e] [i] means (21GP2, 21RP) for combining the altered separate beams of electromagnetic energy/light of the primary first resolved beam of electromagnetic energy/light into a first single collinear beam of electromagnetic energy/light without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy/light, and [ii] means (21GS2, 21RS) for combining the altered separate beams of electromagnetic energy/light of the primary second resolved beam of electromagnetic energy/light into a second single collinear beam of electromagnetic energy/light without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy;

[f] [i] means (17) for resolving from the first single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy/light having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a

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second resolved beam of electromagnetic energy/light having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors, and [ii] means (17) for resolving from the second single collinear beam of electromagnetic energy/light a first resolved beam of electromagnetic energy/light having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy/light having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors; means (19) for passing at least one of the resolved beams of electromagnetic energy/light from step [f] to a projection means (20), which is a means for passing one of the resolved beams of electromagnetic energy from step [f] [i] to a first side of a projection means (left side 20, in so far as at least part of the beam is projected to the left side) and a means for passing one of the resolved beams of electromagnetic energy from step [f] [ii] to a second side of a projection means (right side 20, in so far as at least part of the other beam is projected to the right side); and means (21GP1, 21GS2 or 15BP, 15GP, 15RP, 15BS, 15GS, 15RS) for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy/light; wherein the means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy/light is also the separating means and includes means (21GP1, 21GS2) for adjusting a predetermined range of wavelengths of at least one of the separate beams of electromagnetic energy/light or wherein the means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes a means (15BP, 15GP, 15RP, 15BS, 15GS, 15RS) for adjusting a magnitude of at least one of the separate beams of electromagnetic energy (column 10, lines 8-11, in so far as density in this context is considered



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the intensity or magnitude of the light). Atarashi et al. disclose the claimed invention except for wherein the means for combining the altered separate beams of electromagnetic energy/light of the primary first beam and the primary second beam combines without previously subcombining any plurality of altered separate beams of the primary first resolved beam and the primary second resolved beam. Sato et al. teaches in fig. 24 a system and method wherein a plurality of altered beams (after 709, 710, 711) are combined without previously subcombining any plurality of altered separate beams by a means for combining (708). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the plurality of means for combining of Atarashi et al. with the single means for combining of Sato et al. to provide a more compact system with less parts. The method of utilizing the structure of the claim is inherent therein. Further, in as much as claims 236, 250, 264 and 278 are able to be understood in light 35 U.S.C 112 rejection made above the rejection applies.

Regarding claims 237-238, 251-252, 265-266 and 279-280, Atarashi et al. in view of Sato as applied to claims 233, 247, 261 and 275 above disclose the claimed invention except for in which the means for resolving the primary beam of electromagnetic energy/light into primary first and second resolved beams of electromagnetic energy/light includes means for resolving the primary beam of electromagnetic energy/light into primary first and second resolved beams of electromagnetic energy/light with the resolved beams of electromagnetic energy/light having the substantially same selected predetermined orientation of the chosen component of the electromagnetic wave field vectors substantially across each of the resolved beams of electromagnetic energy/light as that of the other resolved beams of electromagnetic energy/light. Sato et al. further teaches in fig. 2 wherein the primary first and second resolved beams (from

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elements 8 and 10) of electromagnetic energy/light have the same selected predetermined orientation of the chosen component of the electromagnetic wave field vectors (P). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the primary first and second resolved beams be the same predetermined orientation as suggested by Sato et al. to provide the same light qualities to all the components for more consistent images.

6. Claims 235, 249, 263 and 277 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atarashi et al. in view of in view of Sato et al. as applied to claims 233, 247, 261 and 275 above, and further in view of Konno et al., U.S. Patent No 4,497,015.

Atarashi et al. in view of Sato et al. as applied to claims 233, 247, 261 and 275 above disclose the claimed invention except for the primary beam being a having a rectangular cross sectional area. Konno et al. disclose a light illumination device (fig, 5) that produces a primary beam (at M) that has a rectangular cross sectional area (using lens element 102, fig. 3; column 3, lines 5-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the light source of Atarashi et al. in view of Sato et al. with that of Konno et al. to meet the needed rectangular shape for a particular component, application or device (Konno, column 3, lines 3-5).

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 233-288 have been considered but are moot in view of the new ground(s) of rejection.

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8. It is noted by the Examiner that the claim objections made in the previous Office Action have been withdrawn due to amendment by the Applicant.

*Conclusion*

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (571) 272-2313. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LAF

January 10, 2005



MARK A. ROBINSON  
PRIMARY EXAMINER